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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,362	06/23/2005	Viatcheslav Dmitrievich Shapovalov	0065.0001US1	3493
29127	7590	12/24/2008		
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			EXAMINER ZHU, WEIPING	
			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			12/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,362

Applicant(s)

SHAPOVALOV ET AL.

Examiner

WEIPING ZHU

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 10, 2008 has been entered.

Status of Claims

2. Claims 1-21 are currently under examination wherein claims 1 and 12-14 have been amended in applicant's amendment filed on November 10, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8-18, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulze (US 4,561,947).

With respect to claim 1, 10, and 12-14, Schulze ('947) discloses a method for extracting a precious metal from an ore comprising: treating the ore with an oxidant in the presence of a solvent (i.e. a liquid phase recovery as claimed in the instant claim 13) and a reducing agent, whereby the oxidant and the reducing agent react to generate

reaction products that oxidize or form complexes with the metal, thereby extracting the metal from the ore, wherein the metal compounds dissolve in the liquid phase as claimed in the instant claim 12 and the method is performed in an environment where agents forming complexes with the metal are selected from the group consisting of the ore, the oxidant, the solvent, the reducing agent and products of their reactions as claimed in the instant claims 1 and 12-14 (col. 2, lines 1-13). Schulze ('947) further discloses that adding thiourea would reduce the leaching time and increase the yield because noble metals are brought into solution especially quickly in the form of complexes (col. 1, line 65 to col. 2 line 13). This teaching of Schulze ('947), however, has not been relied upon to establish the ground(s) of the rejection. Schulze ('947) does not disclose that the reaction products of the oxidant and the reducing agent include additional oxidizing agents (e.g. radicals) as claimed in the instant claims 10 and 12-14. However, it has been well held where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I. In the instant case, the claimed and Schulze ('947)'s solutions are identical or substantially identical in composition and are produced by identical or substantially identical processes. Therefore, the solution of Schulze ('947) anticipates the claimed solution. The same additional oxidizing agents including radicals would be expected in the solution of Schulze ('947)' as in the claimed solution.

With respect to claims 2-4, 15 and 16, Schulze ('947) discloses that the ore includes "problem ores" (i.e. the robust minerals as claimed), a carbonaceous component and more than one nonferrous, rare or precious metals (col. 2, lines 14-32).

With respect to claims 5 and 17, Schulze ('947) discloses that the metal comprises gold (col. 5, lines 28-30).

With respect to claims 6 and 18, Schulze ('947) discloses that the solvent is acidic (abstract).

With respect to claims 8, 9, 20 and 21, Schulze ('947) discloses that the oxidant comprises chlorates and the reducing agent comprises sulfites (col. 2, lines 44-50).

With respect to claim 11, Schulze ('947) does not disclose the claimed features. However it would be inherent that the reaction products of Schulze ('947) are capable of oxidizing more than one nonferrous, rare or precious metal as claimed because the reaction products of Schulze ('947) would be the same as the reaction products of the instant invention as discussed in the paragraphs above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze ('947).

The teaching of Schulze ('947) was discussed in the paragraph 3 above.

With respect to claims 7 and 19, Schulze ('947) does not disclose that the solvent is a hydrochloric acid solution as claimed. However, Schulze ('947) discloses recovering precious metals from ores containing them by treatments in an aqueous acidic medium in the presence of an oxidant and a reducing agent (col. 2, lines 1-7) without limiting the type of acidic solution to be used. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the hydrochloric acid solution as claimed with expected success, because Schulze ('947) discloses the same utility over different types of acidic solutions. See MPEP 2144.05 I.

Response to Arguments

5. The applicant's arguments filed on November 10, 2008 have been fully considered but they are not persuasive.

The applicant argues that Schulze ('947) depends on the presence of thiourea as a complexing agent, which is a critical element of Schulze ('947)'s method; and the method of Schulze ('947) will never work without the presence of thiourea. In response, see the new ground of rejection in the paragraph 3 above. The examiner notes that Schulze ('947) discloses treating the ore with oxygen-containing oxidants such as ferric salts, chlorine, peroxides, nitrates and chlorates in the presence of a solvent and a reduction agent (col. 2, lines 1-7 and 44-64), which inherently meet the claim limitations in the instant claims 1 and 12-14. Schulze ('947) further discloses that the use of thiourea is preferred in order to reduce the leaching time and increase the yield (col. 1, line 65 to col. 2 line 13). The method of Schulze ('947) would inherently work without the

presence of thiourea in recovering noble metals from ores, only with a longer leaching time and a reduced yield.

Conclusion

6. This Office action is made non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

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WZ

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Application Number**Application/Control No.**

10/540,362

Examiner

WEIPING ZHU

**Applicant(s)/Patent under
Reexamination**

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